IN THE CLAIMS:

Please add Claims 18 to 20. The claims, as pending in the subject application, read as follows:

1. to 12. (Canceled)

13. (Previously Presented) A system for counting the number of layers of a multilayer object, comprising:

an oscillation unit for oscillating an electromagnetic wave pulse having a frequency in a range from 30 GHz to 100 THz to irradiate either a top surface or a bottom surface of the multilayer object;

a reception unit for receiving electromagnetic wave pulses reflected at interfaces of the layers of the multilayer object; and

a processing unit for temporally sampling an output value of the reflected electromagnetic wave pulses at every split time to obtain a temporal waveform of the reflected electromagnetic wave pulses, said split time being shorter than a pulse width of the temporal waveform, wherein the temporal waveform is used for counting the number of pulses, and the number of layers of the multilayer object is counted on the basis of the counted number of pulses.

14. (Previously Presented) The system according to claim 13, further comprising:

a second reception unit for receiving an electromagnetic wave generated by

transmission of the electromagnetic wave pulse oscillated by said oscillation unit through the multilayer object; and

a second processing unit for detecting a delay time of the transmitted electromagnetic wave pulse relative to an electromagnetic wave pulse to be detected when the multilayer object is absent, for counting the number of layers of the multilayer object on the basis of the delay time.

15. (Previously Presented) The system according to claim 14, further comprising:

a dividing unit for dividing the electromagnetic wave pulse oscillated by said oscillation unit into a first electromagnetic wave pulse for irradiating the multilayer object and a second electromagnetic wave pulse to be propagated directly to said reception unit or said second reception unit.

16. (Previously Presented) The system according to claim 14, further comprising:

a propagation unit for propagating the electromagnetic wave pulse oscillated by said oscillation unit through a propagation route getting to said reception unit or said second reception unit.

17. (Previously Presented) A method for counting the number of layers of a multilayer object, comprising:

an oscillation step of oscillating an electromagnetic wave pulse having a

frequency in a range from 30 GHz to 100 THz to irradiate either a top surface or a bottom surface of a multilayer object;

a reception step of receiving electromagnetic wave pulses reflected at interfaces of the layers of the multilayer object; and

a processing step of temporally sampling an output value of the reflected electromagnetic wave pulses at every split time to obtain a temporal waveform of the reflected electromagnetic wave pulses, said split time being shorter than a pulse width of the temporal waveform, wherein the temporal waveform is used for counting the number of pulses, and the number of layers of the multilayer object is counted on the basis of the counted number of pulses.

18. (New) The system according to claim 13, wherein the oscillation unit and the reception unit are photoconduction devices, respectively.

19. (New) A system for counting the number of layers of a multilayer object, comprising:

an oscillation unit for oscillating an electromagnetic wave pulse having a frequency in a range from 30 GHz to 100 THz to irradiate either a top surface or a bottom surface of the multilayer object;

a reception unit for receiving an output value of electromagnetic wave pulses reflected at interfaces of the layers of the multilayer object; and

a processing unit for counting the number of layers of the multilayer object on the basis of the number of pulses which is counted by using a temporal waveform of the

reflected electromagnetic wave pulses,

wherein the reception unit temporally samples output values of the reflected electromagnetic wave pulses at every split time, said split time being shorter than a pulse width of the temporal waveform, and

wherein the processing unit obtains the temporal waveform by using the output values.

20. (New) A method for counting the number of layers of a multilayer object, comprising:

an oscillation step of oscillating an electromagnetic wave pulse having a frequency in a range from 30 GHz to 100 THz to irradiate either a top surface or a bottom surface of a multilayer object;

a reception step of receiving an output value of electromagnetic wave pulses reflected at interfaces of the layers of the multilayer object; and

a processing step of counting the number of layers of the multilayer object on the basis of the number of pulses which is counted by using a temporal waveform of the reflected electromagnetic wave pulses,

wherein the reception step temporally samples output values of the reflected electromagnetic wave pulses at every split time, said split time being shorter than a pulse width of the temporal waveform, and

wherein the processing step obtains the temporal waveform by using the output values.